

In the Claims

1-20 (canceled)

21. (original) A method of fabricating integrated circuit chips having a plurality of contact pads to be connected by reflow attachment to outside parts, comprising the steps of:

depositing a layer of nickel/titanium alloy composed of 55.5 ± 0.5 weight% nickel and 44.5 ± 0.5 weight% titanium in the thickness range of 0.3 to 6.0 μm ;

recrystallizing said alloy layer at 500 °C for about 5 min, creating a crystalline structure operable in reversible phase transitions under thermo-mechanical stress, whereby mechanical strain is absorbed by said alloy layer;

depositing a layer of solderable metal on said alloy; and
patterning said deposited layers.

22. (original) The method according to Claim 21 wherein said step of depositing is a DC sputter technique at about 160 W/in² for about 1 hour.

23. (original) The method according to Claim 21 wherein said solderable metal is nickel, deposited by a plating or sputtering technique in a thickness of about 0.5 μm .

24. (original) The method according to Claim 21 further comprising the step of depositing, by electroplating, an outermost layer of palladium in the thickness of about 0.02 μm .

25. (new) A method of fabricating an integrated circuit having a plurality of contact pads, comprising the steps of:

providing a layer of nickel/titanium alloy on each of said pads, said alloy having a composition of between about 55.5 and about 56.5 weight % nickel and between about 43.5 and about 44.5 weight% titanium ; and

a layer of solderable metal over said alloy.

26. (new) The method of claim 25 wherein said alloy layer has a thickness in the range of about 0.3 to about 6.0 μm .

27. (new) The method of claim 25 wherein said solderable metal is nickel.

28. (new) The method of claim 26 further comprising the step of providing a solder bump on said solderable material.